Docket No. 210121.465C6

HU: MGSDVRDLNALLPAVPSLGGGGGCALPVSGAAQWAPVLDFAPPGASAYGSL MO: MGSDVRDLNALLPAVSSLGGGGGCGLPVSGAAQWAPVLDFAPPGASAYGSL

HU: GGPAPPPAPPPPPPPPPPHSFIKQEPSWGGAEPHEEQCLSAFTVHFSGQFTGTAG MO: GGPAPPPAPPPPPPPPPHSFIKQEPSWGGAEPHEEQCLSAFTLHFSGQFTGTAG

HU: ACRYGPFGPPPPSQASSGQARMFPNAPYLPSCLESQPAIRNQGYSTVTFDGTPS MO: ACRYGPFGPPPPSQASSGQARMFPNAPYLPSCLESQPTIRNQGYSTVTFDGAPS

HU: YGHTPSHHAAQFPNHSFKHEDPMGQQGSLGEQQYSVPPPVYGCHTPTDSCTG MO: YGHTPSHHAAQFPNHSFKHEDPMGQQGSLGEQQYSVPPPVYGCHTPTDSCTG

HU: SQALLLRTPYSSDNLYQMTSQLECMTWNQMNLGATLKGVAAGSSSSVKWTE MO: SQALLLRTPYSSDNLYQMTSQLECMTWNQMNLGATLKGMAAGSSSSVKWTE

HU: GOSNHSTGYESDNHTTPILCGAOYRIHTHGVFRGIODVRRVPGVAPTLVRSAS MO: GQSNHGIGYESDNHTAPILCGAQYRIHTHGVFRGIQDVRRVSGVAPTLVRSAS

HU: ETSEKRPFMCAYPGCNKRYFKLSHLQMHSRKHTGEKPYQCDFKDCERRFSR MO: ETSEKRPFMCAYPGCNKRYFKLSHLQMHSRKHTGEKPYQCDFKDCERRFSR

HU: SDQLKRHQRRHTGVKPFQCKTCQRKFSRSDHLKTHTRTHTGKTSEKPFSCR MO: SDQLKRHQRRHTGVKPFQCKTCQRKFSRSDHLKTHTRTHTGKTSEKPFSCR

HU: WPSCQKKFARSDELVRHHNMHQRNMTKLQLAL MO: WHSCQKKFARSDELVRHHNMHQRNMTKLHVAL



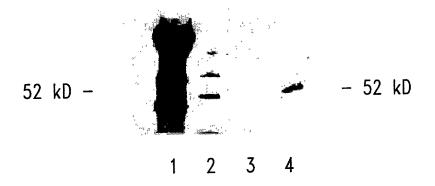


Fig. 2

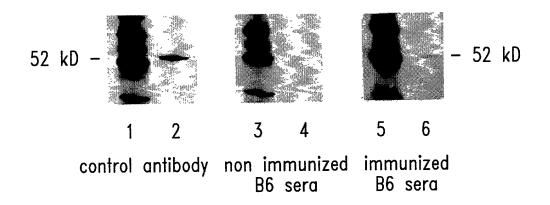


Fig. 3

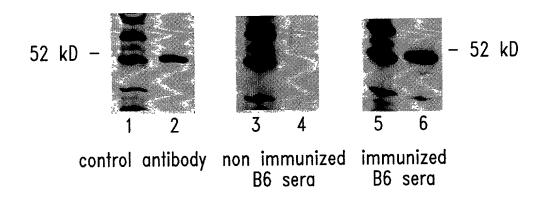
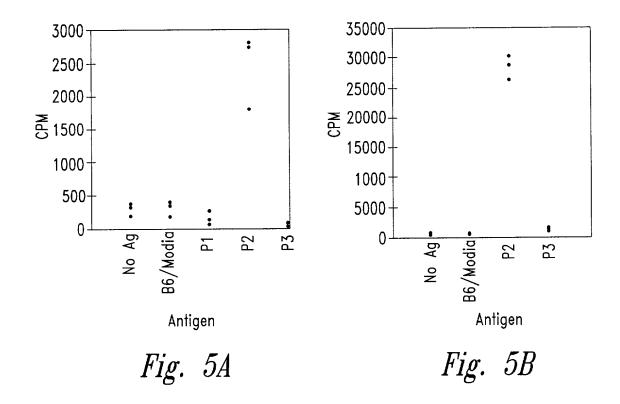


Fig. 4



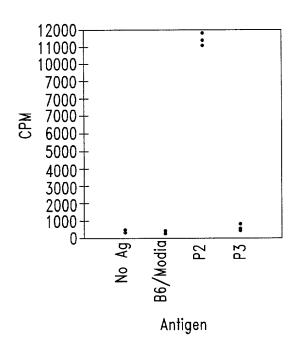


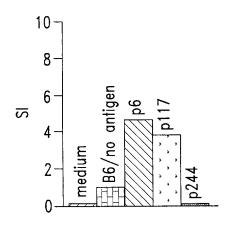
Fig. 5C

Inventor(s): Alexander Gaiger et al.

Express Mail No. EL897868473US

Docket No. 210121.465C6

Vaccine A stimulated line



Vaccine B stimulated line

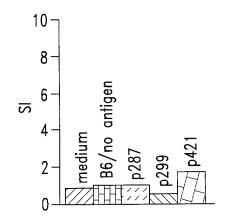


Fig. 6A

Fig. 6B

p117-139 stimulated line

p117-139 stimulated clone

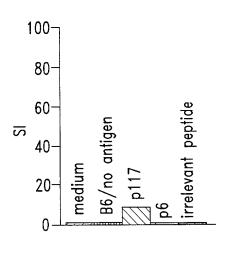


Fig. 7A

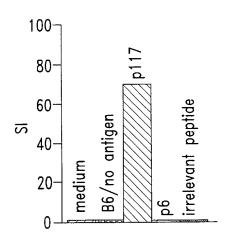


Fig. 7B

p6-22 stimulated line

100-80-60 $\overline{\sim}$ 40 20

Fig. 7C

p6-22 stimulated clone

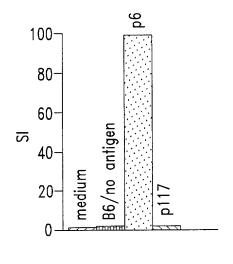


Fig. 7D

5 MGSDVRD AA	LNALL VAAAA	AAAAA 	LGGGG VAAAA · · · · · ·	GCALF	VSGAA AAA RRR	AAA R	/LDFAF	PGASA AAA	AYGSLO AAAAA 	GPAPI AAAA.	PAPPI	PPPPF	PHSFI	KQE
	85 PHEEQ	90 CLSAF AA	95 TVHFS	100 GQFT0 AAA R	105 GTAGAC A PRRR	110 CRYGPF	115 -GPPPF	120 PSQASS	125 GQARN AAA RR DDDD	130 IFPNAI	135 PYLPSO .AAAA	140 CLESQF VAA	145 PAIRNO 	150 QGYS
	160 PSYGH	165 HTPSHH A R	170 IAAQFI AAAA RRR	175 PNHSFI	180 (HEDP!	185 4GQQG:	190 SLGEQO	195 QYSVP	200 PPVYG0	205 CHTPT VAAAAA	210 DSCTG A	215 SQALL	220 LRTPYS	225 SSDN .AA
	235 LECMT A	240 FWNQMN	245 ILGATI A .RRRI	250 LKGVA AA . AA RRRRR DDDDD	255 AGSSSS A RR	260 SVKWTI .RRRI D	265 EGQSNI	270 HSTGY	275 ESDNH	280 TTPIL	285 CGAQY	290 RIHTH AA !	295 GVFRG AAAAA RRRR	300 IQDV AAAA
	310 APTLVI AAAA RR DDDDI	315 RSASET AAAAAA DD	320 SEKR \A	325 PFMCA	330 YPGCN	335 KRYFK .RRRR	340 LSHLQ 	345 MHSRK 	350 HTGEK	355 PYQCD	360 FKDCE <i>A</i>	365 RRFSR AAA . A	370 SDQLK AAAAA	375 RHQR AAA.
380 RHTGVKI	385 PFQCK	390 TCQRKF 	395 SRSD 	400 HLKTH AAA	405 TRTHT	410 GKTSE AAAA.	415 KPFSC	420 RWPSC A	425 QKKFA AA RRR	430 RSDEL .AAAA RRR	435 VRHHN AAAA RR	440 IMHQRN AAA	445 MTKLQ	450 LAL

Fig. 8A

MGSDVRD AA	LNALL AAAAA/	PAVSS! NAAAA/	LGGGG VAAAA 	GCGLP	VSGAA AAA RRR	QWAPV AAA R	LDFAF	PGASA AAA	YGSLO AAAAA	GPAPI AAAA .	PAPP!	PPPPPI 		KQE
80 PSWGGAE			TLHFS	GQFTG AAA R	itagac A RRR	RYGPF	GPPPF	PSQASS	SGQARN AAA RR DDDD	MFPNAI N RRR.	PYLPS(CLESQI WA		GYS ···
155 TVTFDGA		ITPSHH A R	IAAQFI AAAA . RRR	PNHSF	(HEDP)	AGQQGS	SLGEQ	QYSVPI	PPVYG 	CHTPT WAAAA	DSCTG A DDDI	SQALL DDDDDI	LRTPYS	SSDN AA
	235 QLECMT \A	240 WNQMN	245 ILGATI A .RRRF	250 _KGMAA AA . AAA RRRRR DDDDDD	255 AGSSSS A RR	260 SVKWTI . RRRF	265 EGQSNI	270 HGIGY	275 ESDNH	280 TAPIL	285 CGAQY	290 RIHTH AA l	295 GVFRG: AAAAA RRRR	300 IQDV AAAA
RRVSGV/ AAAAA. RRF DDDDD	. AAAA RR	RSASET NAAAAA DD	rsekri Va	PFMCA'	YPGCNI	KRYFK .RRRR	LSHLQ	MHSRK	HTGEK	PYQCD	<i>P</i>	RRFSR AAA.A		AAA .
380 RHTGVK	 	CQRKF . AAAA	SRSD A. AAA/ 	HLKTH AAA 	TRTHT	GKTSE NAAA . 	KPFSC 	RWHSC	QKKFA AA RRR	RSDEL . AAAA R RR	VRHHN AAAA. RR	IMHQRN AAA 	MTKLH A	VAL

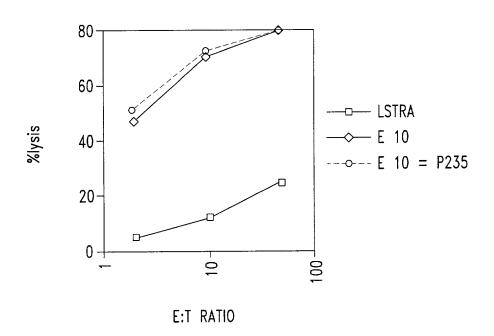


Fig. 9A

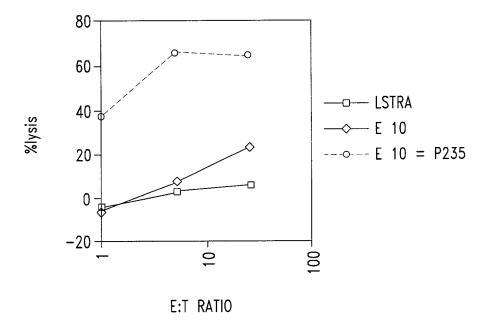


Fig. 9B

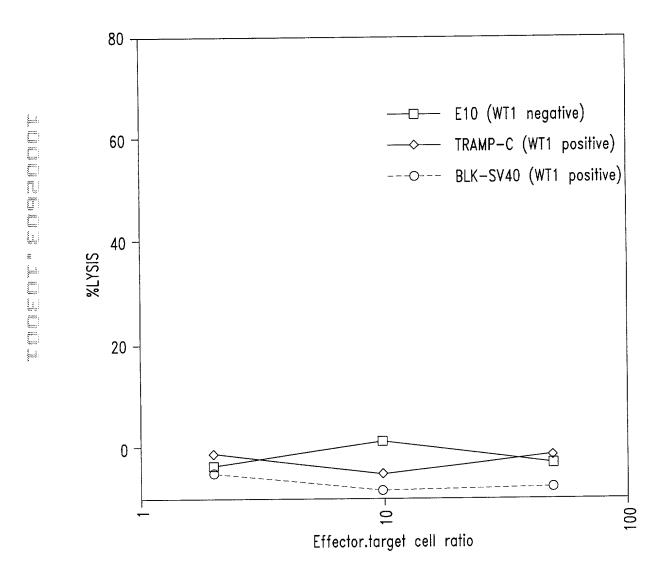


Fig. 10A

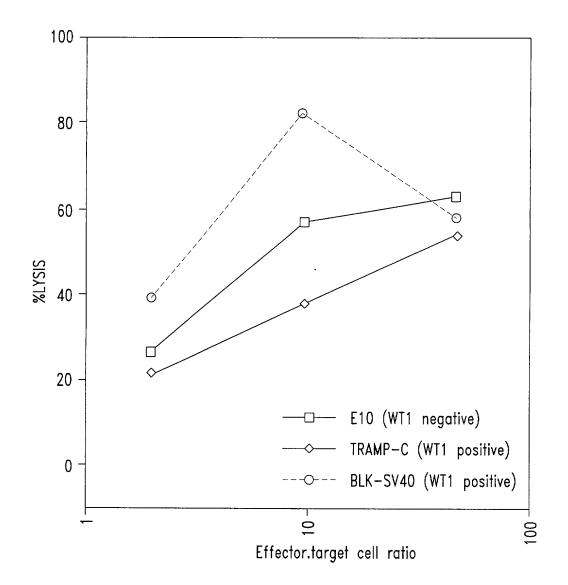


Fig. 10B

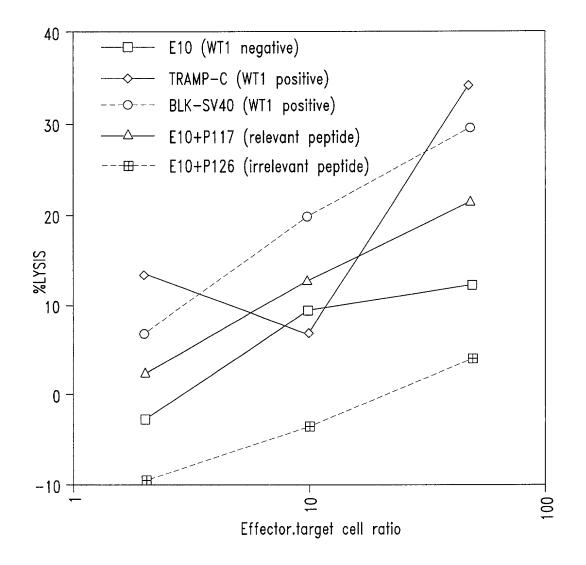
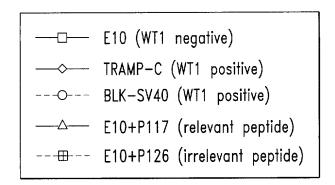


Fig. 10C



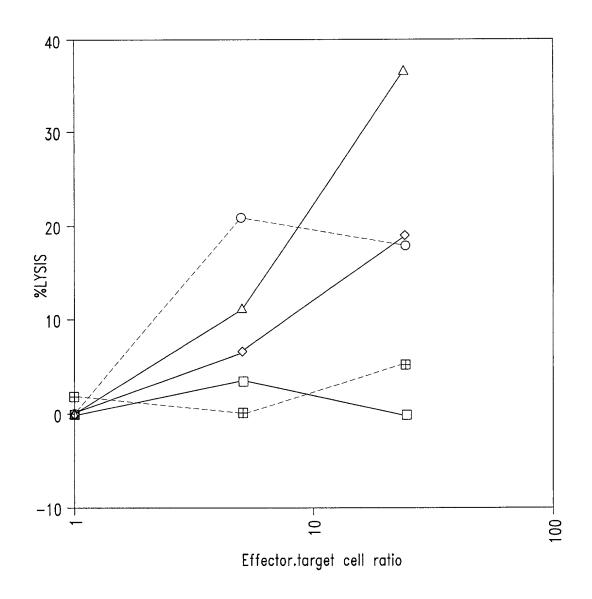
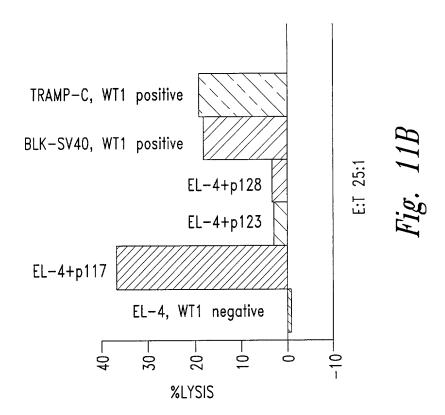
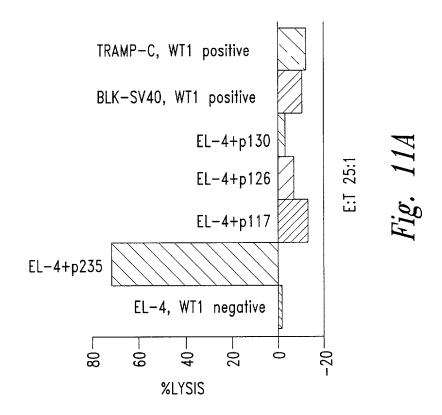
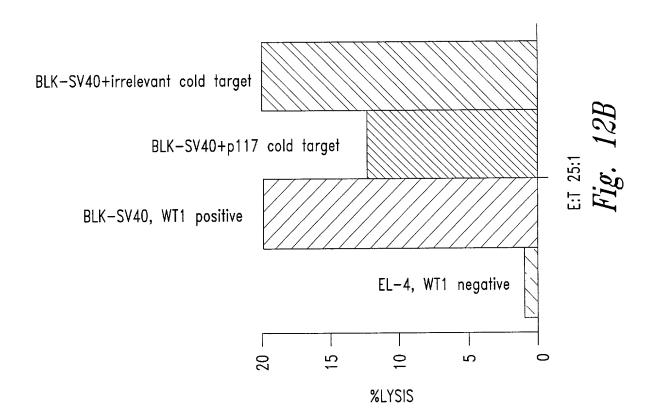
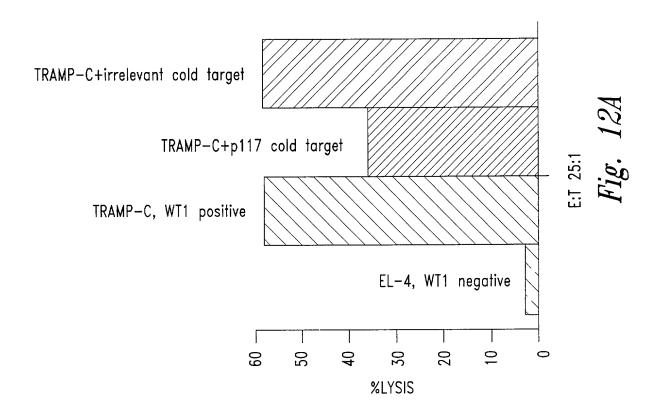


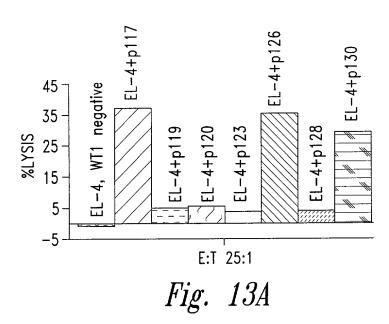
Fig. 10D

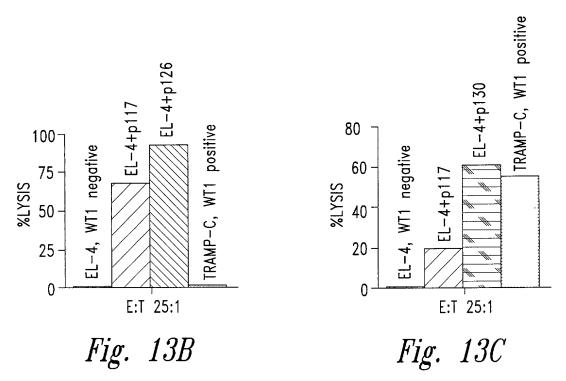












Title: COMPOSITIONS AND METHODS FOR WT1 SPECIFIC IMMUNOTHERAPY

Inventor(s): Alexander Gaiger et al. Express Mail No. EL897868473US Docket No. 210121.465C6

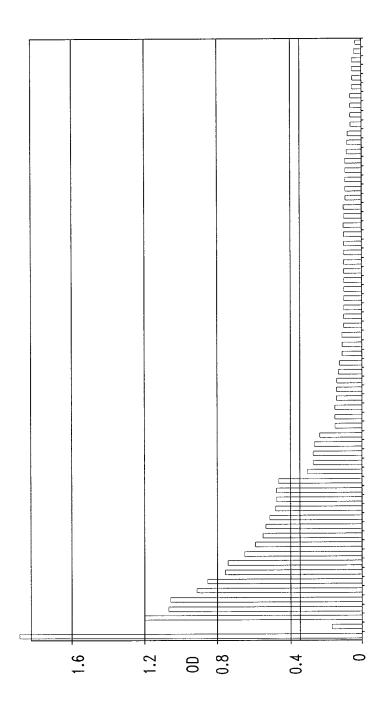


Fig. 14

Inventor(s): Alexander Gaiger et al. Express Mail No. EL897868473US Docket No. 210121.465C6

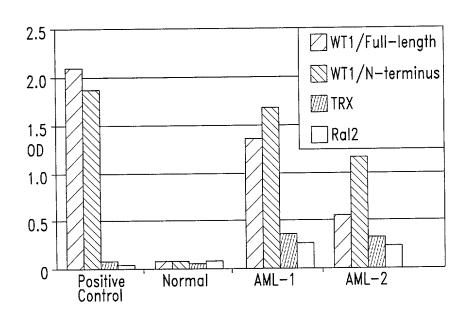
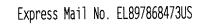


Fig. 15



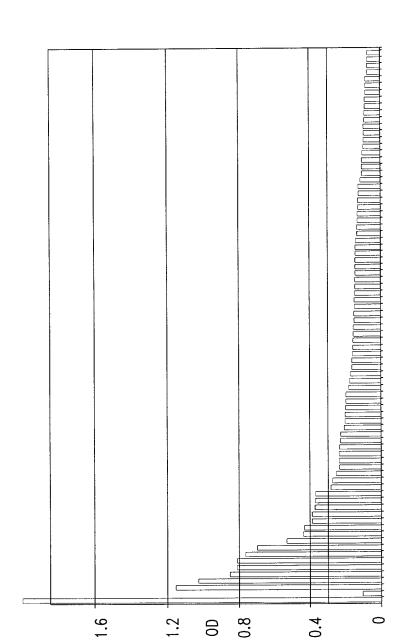


Fig. 16

1.6

| WT1/Full-length | WT1/N-terminus | TRX | Ral2

0.4

| Positive | Normal | CML-1 | CML-2 | CML-2

Fig. 17

Molecular Weight

WT1 Amino Acid Position

aa 1-449

TABLE 1: Characteristics of Recombinant WT1 Proteins Used for Serological Analysis

Recombinant Protein

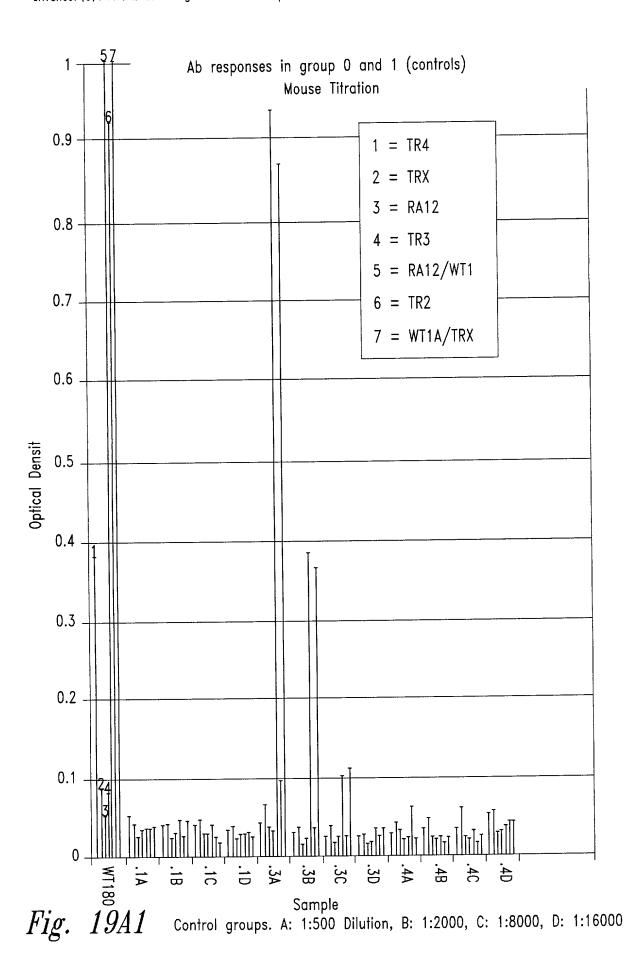
WT1/N-terminus WT1/C-terminus

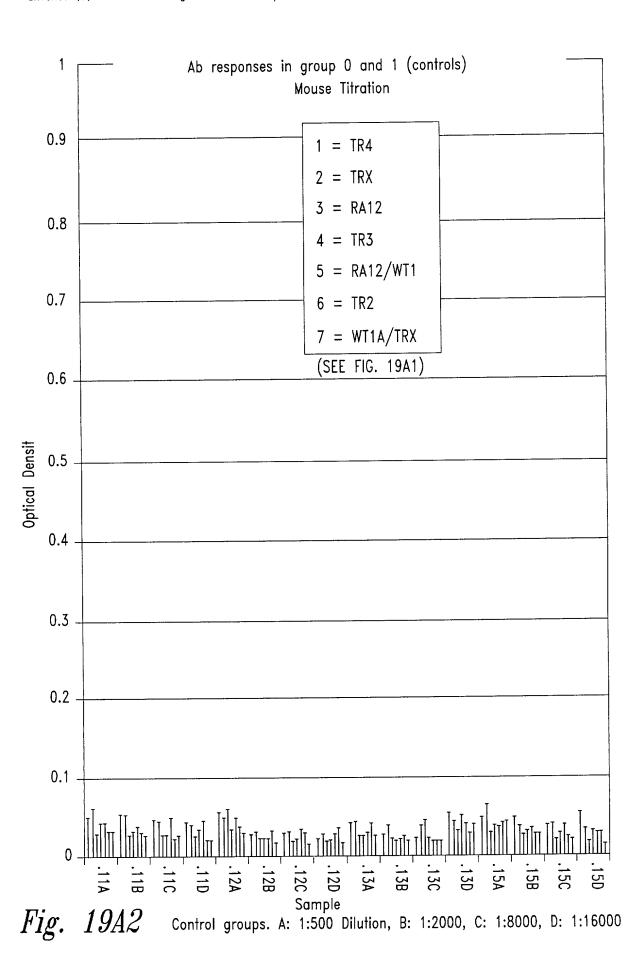
WT1/full-length

NAME

85kDa 60kDa 50kDa

aa 1-249 aa 267-449 Ral2—WT1 full length fusion protein TRX—WT1 N—terminus fusion protein WT1 C—terminus protein





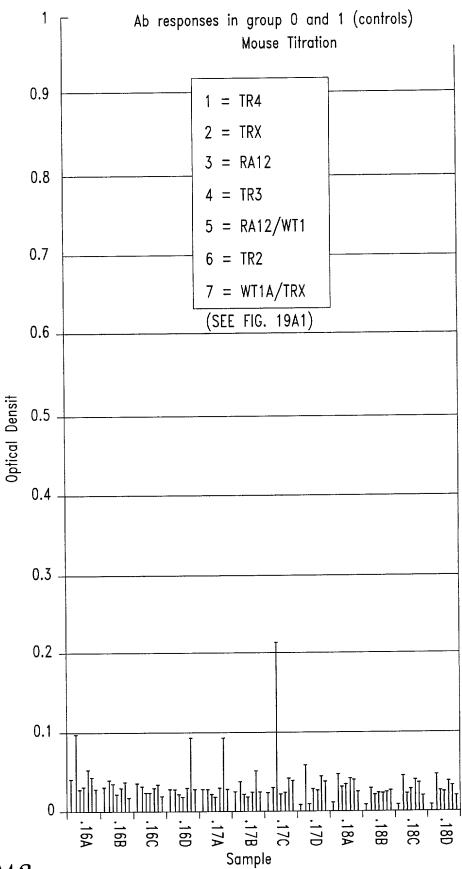
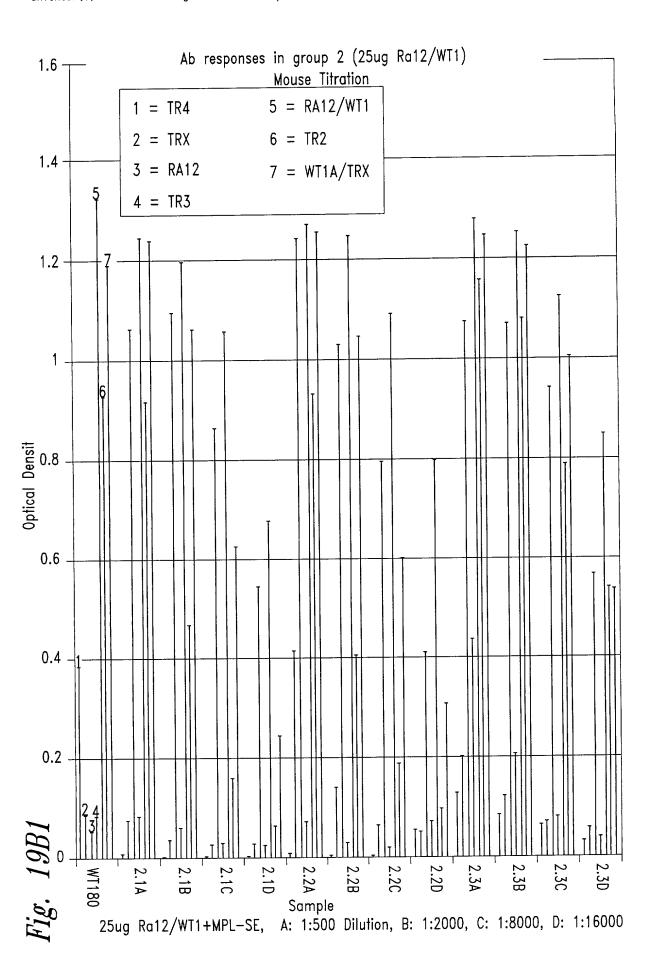
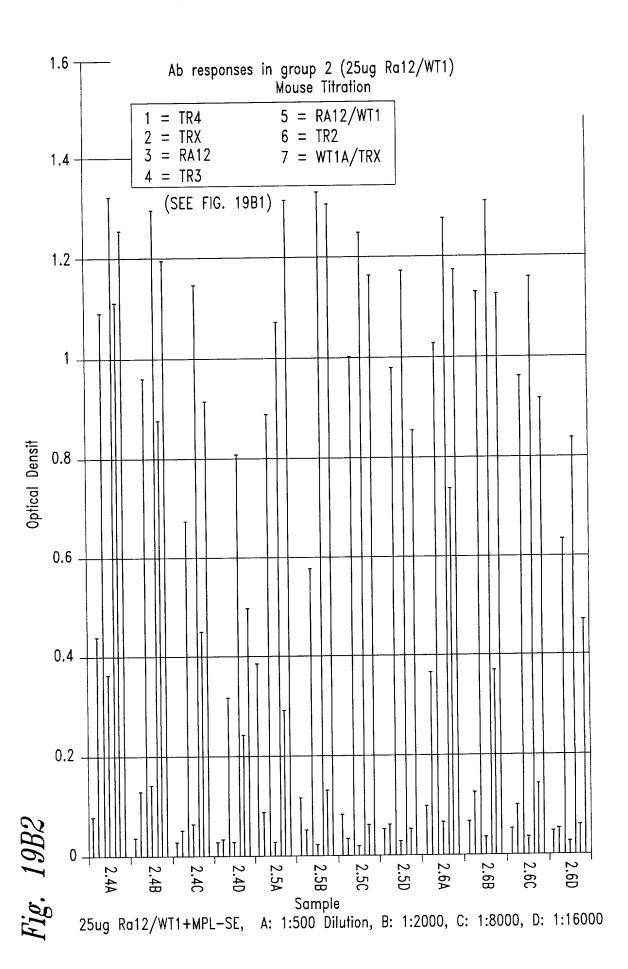
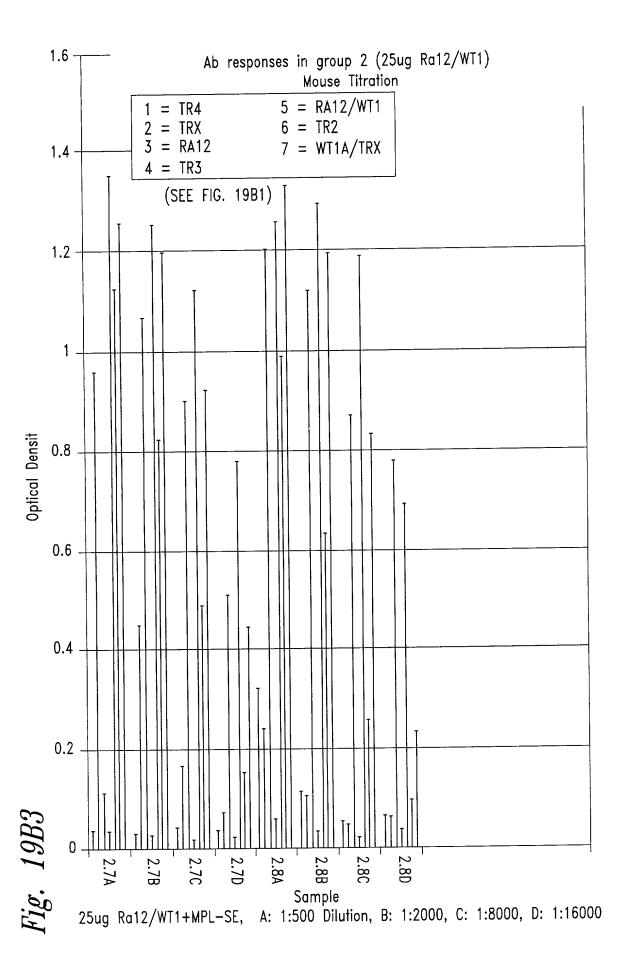


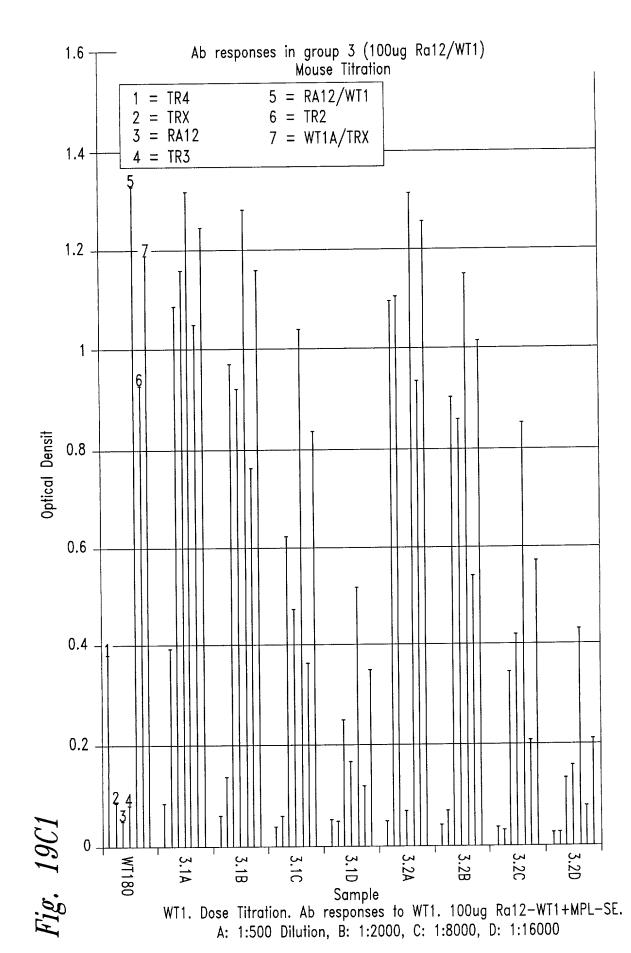
Fig. 19A3 Control groups. A: 1:500 Dilution, B: 1:2000, C: 1:8000, D: 1:16000

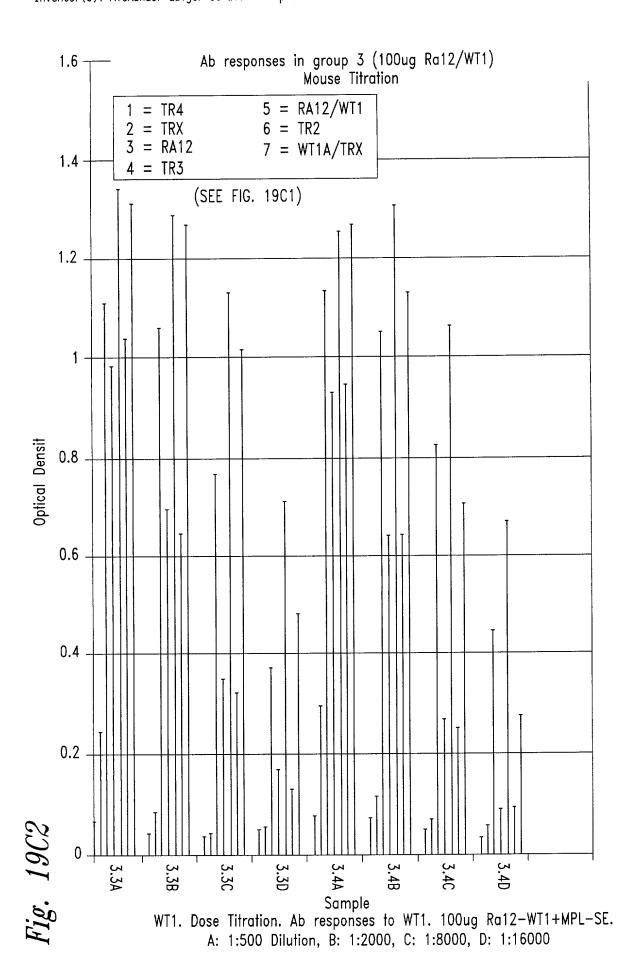


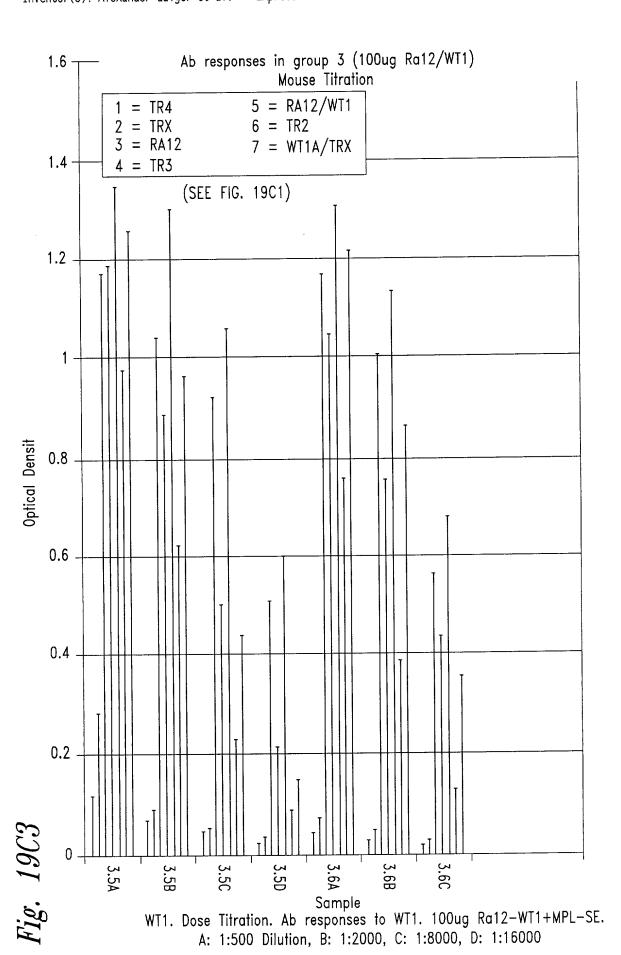




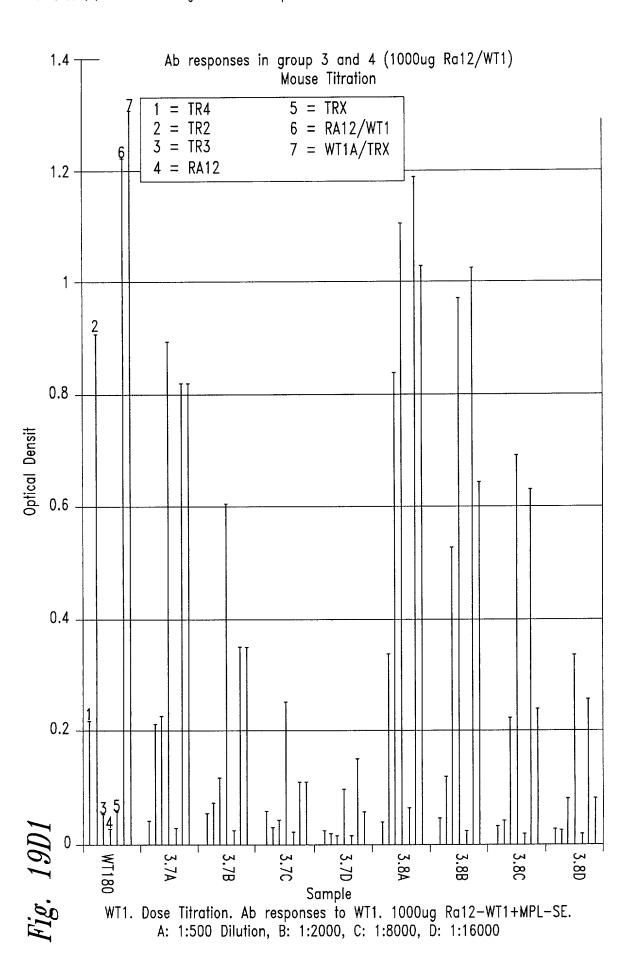
III COESUS ALSIUI



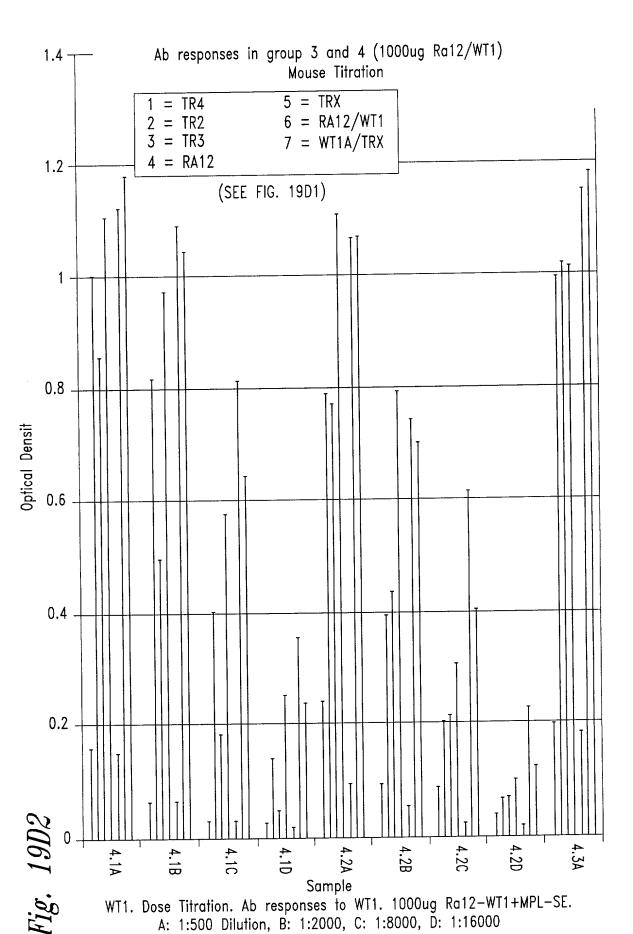


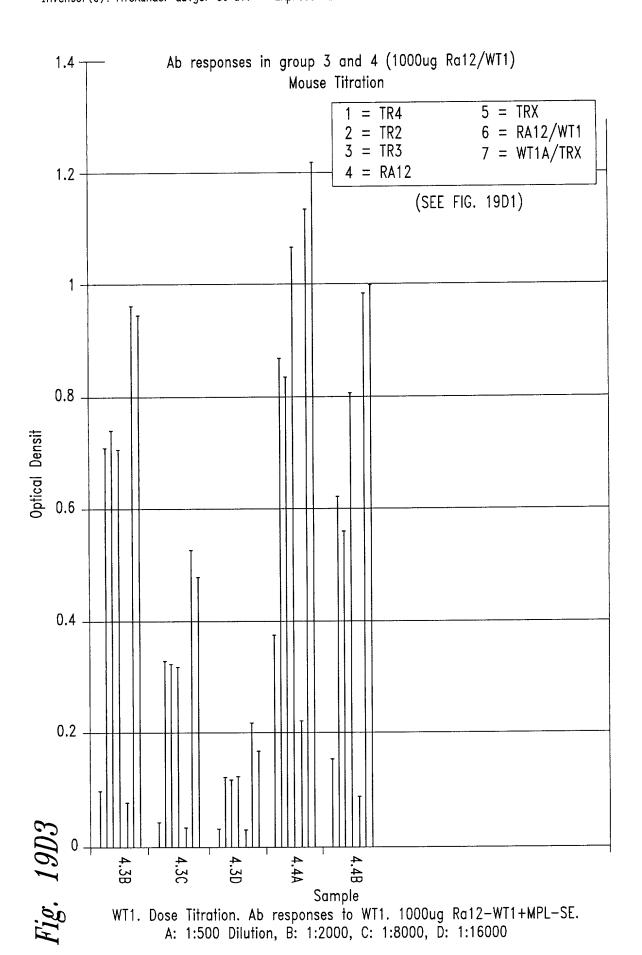


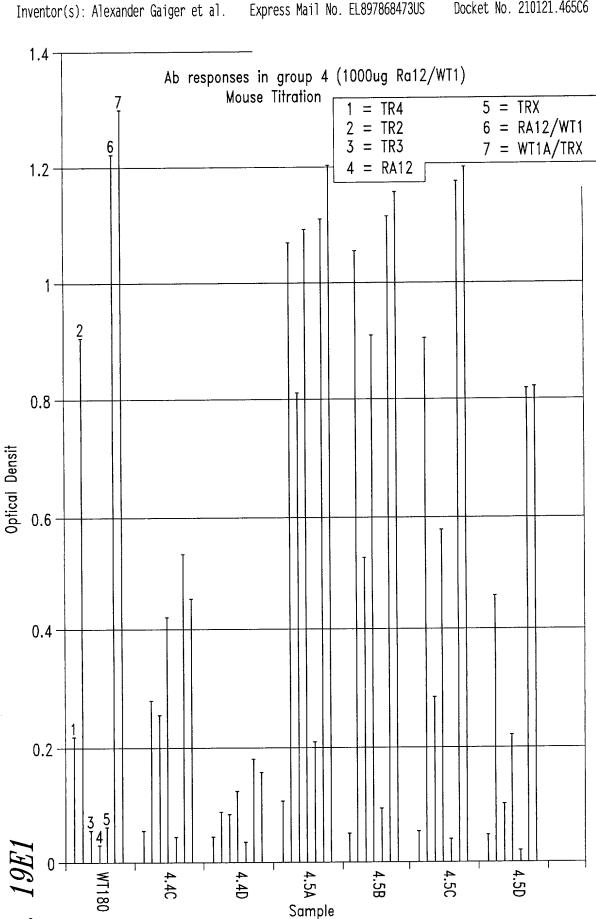




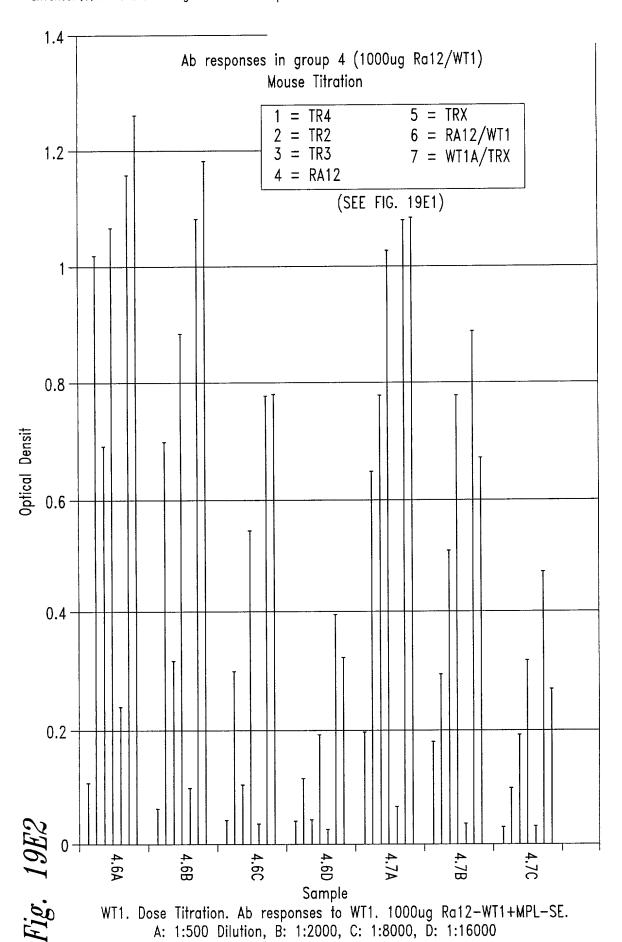




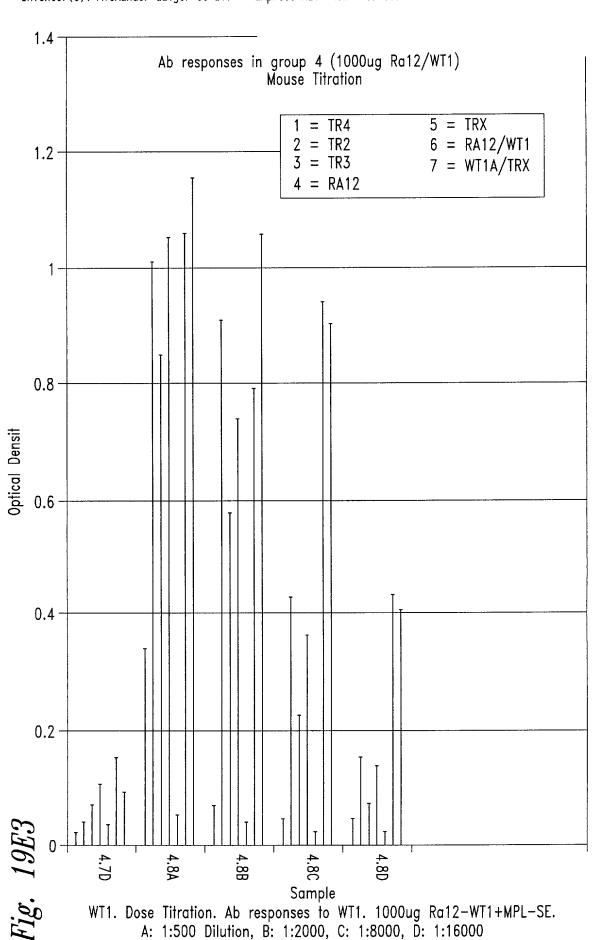


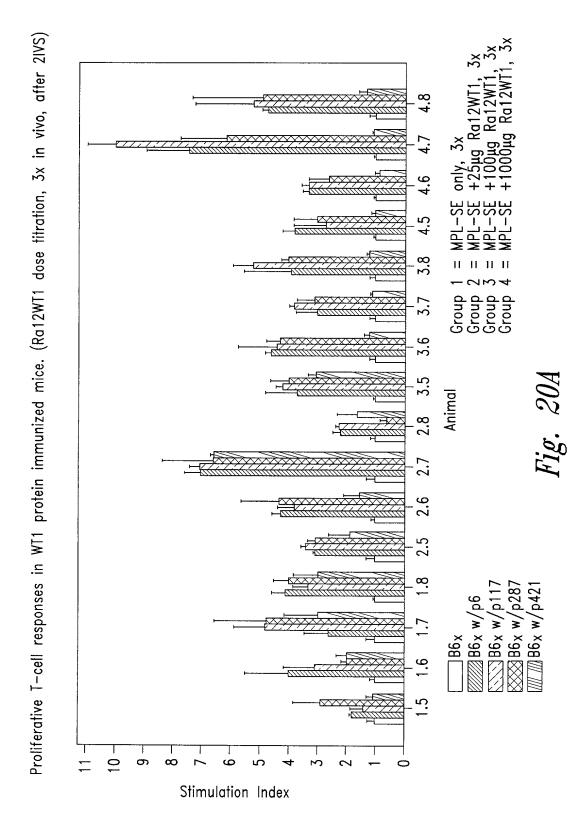


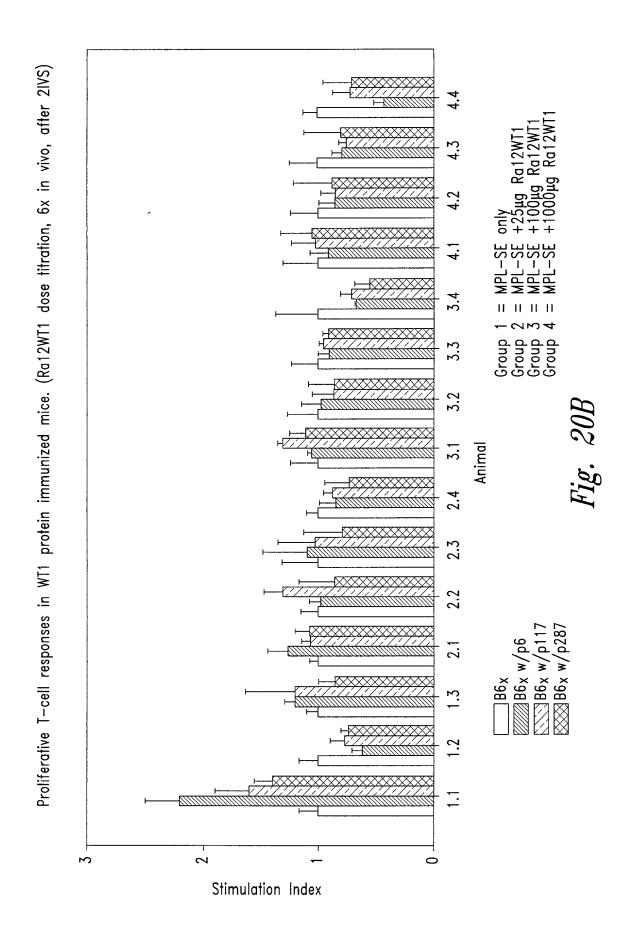
WT1. Dose Titration. Ab responses to WT1. 1000ug Ra12-WT1+MPL-SE. A: 1:500 Dilution, B: 1:2000, C: 1:8000, D: 1:16000



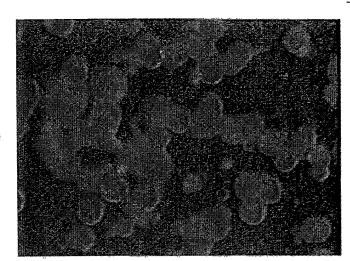




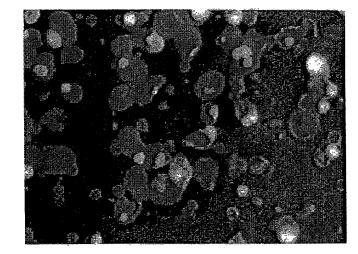




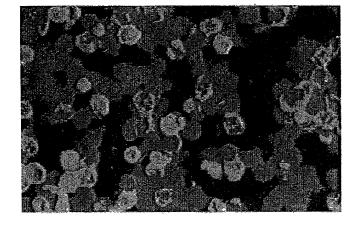
WT1 expression in human DC following adeno WT1 and Vaccinia WT1 infection



Control (uninfected human DC)



Adeno WT1 (infected human DC)



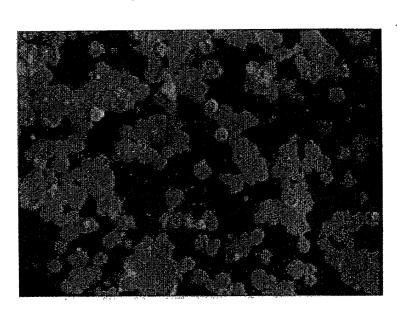
Vaccinia WT1 (infected human DC)

Fig. 21

Inventor(s): Alexander Gaiger et al. Express Mail No. EL897868473US Docket No. 210121.465C6

WT1 can be expressed reproducible in human DC following adeno WT1 infection and is not induced by a control Adeno infection

Control (Adeno EGFP infected human DC)



Vaccinia WT1 (infected human DC)

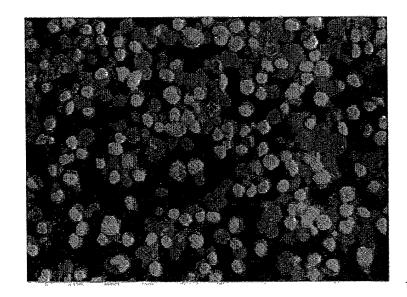


Fig. 22

Inventor(s): Alexander Gaiger et al.

Express Mail No. EL897868473US

Docket No. 210121.465C6

WT1 whole gene in vitro priming elicits WT1 specific T-cell responses (IFN-gamma ELISOT)

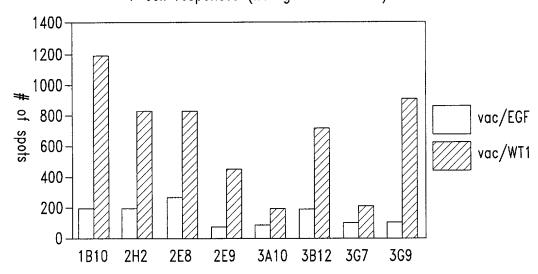


Fig. 23